# THE WESTERN FARMER AND GARDENER,
## AND HORTICULTURAL MAGAZINE.

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### The White Doyenne Pear.

A very old and excellent Pear, which has so long been a favorite with cultivators, especially in France and Germany, and also in America, that its names have become in themselves a catalogue. It is a great and certain bearer, ripening in Europe from the end of September till the third week in October, and in this country from the middle of August to the end of September,—of a first-rate quality as a juicy, melting sort. It is one of the very best to graft upon the quince, and to cultivate *en quenouille*. It succeeds well in our Western soil and climate. Dr. Flagg, at our late fall show, exhibited very fine specimens of this choice pear. During the time when it is in season, it yields to none in excellence.

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### Usefulness of Moles.

Our correspondent, says one of our exchange papers, whose communication on the utility of Moles in destroying the wire-worm, and other grubs which feed on the plants of the young corn, has furnished the following additional information on the subject:

"I had," he says, "a small field of rye-grass and clover, one end of which, early in the spring, was like a honeycomb from workings of moles. A farmer would have destroyed the workers; I, on the contrary, protected them, and not one was destroyed: but I took care to level the mould which they threw up almost every day. And now to the practical result. I lately cut my crop, which was a very good one generally; but at the end, where the moles worked, the crop was better than in any other part; and now not a mole can be discovered in the field. They did the work designed to them by a wise Providence—ate up all the grubs, which would have destroyed my young plants, and then took their departure to some neighbor's field, where doubtless they will be trapped. Another remark as regards birds: for example, as to the tit-mouse; the vulgar idea is that they destroy the buds, and thus injure or ruin the crop. Now I never suffer one of that kind of birds to be killed, but rejoice to see them, and protect them; and I would rather see a superabundance of sparrows than none at all, even by way of profit; and the consequence is, that I have very frequently had a crop of fruit when my neighbors have had none. Again, as you pass cottage-gardens, you very frequently see the leaves eaten off the cabbages, gooseberry and currant bushes, growing near the doors, by caterpillars; while cabbages in the fields, and fruit trees at a distance from houses, are flourishing and left untouched. Here again the same cause is in operation; the small birds, which would have destroyed the insects, are driven from the doors, but perform their natural operations at a distance from them."

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### Culture of Tea in America.

A correspondent of the Albany Cultivator, signing "*H. R. Americus*," says:

"Nothing can be more certain than that our country is exactly suited to the culture of the *Tea Plant*, and is destined, at no very distant period, to be one of the greatest countries for this production in the world." The reasons he gives for this opinion are, we are in the same latitude as the best tea countries of China,—that our soil is similar, and its natural productions the same. He thinks the ingenuity of our countrymen would soon enable them to understand its cultivation, and the mode of curing it, as well or better than it is done by the "stupid Chinese." He suggests that some of our wealthy capitalists commence a trial of it.

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### Mode of Putting New Roots to Old Trees.

It appears to consist in cutting off a top root and grafting fibres all around the stem, which shoot like grafts in the ordinary manner on trees above, and draw the nourishment to the plant, as if they had formed its original parts.

If the above be worth noticing, give it a place.

A CINCINNATIAN.

**Spirit of the Agricultural Journals.**

It is stated in the speech of Mr. Colman, the eminent representative of the American farmers, delivered before the Saffron Walden Agricultural Society, in England, that a farmer had raised seven quarters of wheat (56 bushels) an acre, on a considerable extent of ground in the present season. Mr. Colman heard from another source, that 40 or 50 bushels had been the average in one instance; he knew, in another case, that 60 bushels had been raised as a farm crop; and he had been on a farm where the average crop of potatoes was 700 bushels an acre.

As there is some cause to fear that we shall be visited in the West with the rot in potatoes, so prevalent in the East last year, we quote the opinion of the editor of the American Agriculturist, that the application of lime and charcoal alone, on a good soil, will be likely to act as a preventive. Winter is the best time, as he states, to transport these materials to those places where they will be wanted in the spring.

Chemical research and practice both teach that oats lay on good hard-working flesh, while corn makes fat, or soft flesh at the best, not fit to work on. If you wish to fat a hog or beef, give him corn; but if you want work, supply your animals with plenty of oats, barley, beans, and peas.—*Am. Agr.*

*Shelter for Stock.*—Liebig asserts that "our clothing is merely an equivalent for a certain amount of food." In other words, if we keep ourselves comfortable and warm, we cannot eat so much, because the amount of heat to be supplied by the food is diminished. These observations are as applicable to domestic animals as to ourselves, and they teach the farmer the necessity of providing comfortable shelter for his stock. It has been proved by repeated experiments, that animals during the winter season entirely exposed to the weather, do not thrive as well, nor keep in as good condition, as those comfortably housed, although they consume from 25 to 100 per cent. the most food: thus showing the owners of stock that if they have not sufficient mercy upon the dumb beasts, to provide them shelter for winter, their interests should prompt them to do so.—*Ib.*

*Cure for fistula in Horses.*—Put a seton in the fistula, at the lower part of it. This will discharge the *pus* or matter. Then inject soap suds, made from fine soap, (Castile is the best,) frequently for one day. Next inject a weak solution of oil of vitriol, two or perhaps three times a day, for one or two days. After this wash clean with soap suds. In a short time the fistula will be well. Poll-evil may be cured in the same way.—*Ib.*

*Garden v. Field Beans.*—It has been found out of late, that garden beans require much less pork to give equal body of flavor to them than is necessary with the field bean. It has been found on analysis that the kidney bean contains 23.6 per cent. of legumin, albumen, &c., while the field bean contains but 11.7 per cent. It may be added, that on *strong soils* the kidney bean is equally wholesome, and much more prolific than the field bean.—*Am. Ag.*

*Coons great Rat killers.*—These are "much preferable to cats, to kill, eat, and drive away rats. I can say this from experience. There is not now, since I have had coons, a rat on my place." This statement comes from R. H. Hendrickson, of Middletown, O., a good farmer.—*Ib.*

*Salt for Fruit Trees.*—A writer in the Gardener's Chronicle says: "I have a large handsome Bigarreau cherry tree, which blossomed and fruited, and then drooped. I cut from the turf, a triangular six inch trench round it, six feet from the trunk, half filled it with salt, and put the turf on again. I have had noble crops ever since, (seven years,) but it makes little or no wood."

*Broom Corn.*—Large quantities of the brush of broom corn, raised in the valley of the Ohio and elsewhere, have been shipped to England, within three months past, together with broom handles, for the purpose of manufacturing the brooms there.—*Ib.*

*Miami Hams.*—These are getting to be very highly rated everywhere.—*Ib.*

*Potato Sugar.*—It is stated that they are successfully manufacturing sugar from potatoes in Great Britain.—*Ib.*

*Test for Guano.*—Genuine guano when burned in a red hot shovel, leaves a white ash of phosphate of lime and magnesia. The specific gravity of good fresh guano is seldom more than 1.68, water being 1.00. This manure has been particularly tried in France the last season. It is found to attract the humidity of the air, and that no other manure is equal to it on dry sandy soils; it is particularly favorable to the growth of white clover; it destroys several of the vilest weeds of the field; and it kills wireworms and other insects.—*Ib.*

*Sore Backs or Galls in Horses.*—Rub white lead in sweet oil until a good paint is made, and apply a coating of this to the injured part. Milk will do where no oil is to be had.—*Ib.*

*To protect Hens from Vermin.*—Pennyroyal woven into their nests, will perfectly and certainly protect hens from the annoyance of vermin. The nests may be made entirely of this strong scented herb.—*Ib.*

*To make dry trees grow.*—Bury them in the earth for 24 hours before being set out: they would often grow when they appeared to be entirely dead.—*Ib.*

The following are some extracts from Mr. Colman's Tour in England.

*Quantity of Seed per Acre.*—Under this head we find many useful facts and experiments. The English farmers generally practice very thick sowing, and it is the opinion of some very judicious cultivators, that a large portion of the seed may be saved, and quite as large, if not larger crops be obtained, than there are now. Some experiments strongly support this opinion. The practice in England is to sow from two and a half to three bushels of wheat per acre. One man has reduced his quantity to only *three pecks* per acre. He, however, drills and hand-hoes everything, clover seed excepted. He sows one and a half bushels of rye, two bushels of oats, seven pecks of barley, and two bushels of peas, per acre. In cultivating cabbages, he allows one to three square feet. He has produced forty bushels of wheat, one hundred and four bushels of oats, and forty bushels of barley, to the acre. There is no doubt that by substituting the drill, for the broadcast mode of sowing, a large portion of seed might be saved.

*Spade Husbandry.*—This mode of cultivation seems to be extending itself in Great Britain, and under the cheapness of hand-labor which there prevails, is found fully remunerating. The principle is the same as that of subsoil ploughing. The best tool for the work is a three-pronged fork, fourteen inches deep, and seven and a half inches wide. Mr. Colman cites the example of a man in New England, who, from seven acres of land, sells annually $2,500 worth of produce.

*Model Farms.*—Mr. Colman notices some of these. He has visited that at Glasnevin, near Dublin, and furnishes some highly interesting particulars in regard to it. In connexion with this establishment there is also an agricultural school, where young men receive such an education, theoretical and practical, as fits them to pursue the occupation of farming to the best advantage. The young men work in the field about six hours a day. Mr. C. had the gratification of listening to on examination of fourteen of these young men, brought out of the field from their labor, and declares that "it was eminently successful, and in the highest degree creditable both to master and pupil." The products of this model farm, as given by the superintendent and teacher, are quite remarkable. Seven hundred and twenty bushels of potatoes per acre, are given as an average crop. The superintendent states that the largest crop he ever obtained, was in a field where the sets were three feet apart each way. Medium sized potatoes, planted whole, are preferred to cut ones. The experiment had been made, and the difference between whole potatoes and cuttings was marked, and obviously in favor of the former. The cattle on the farm are *soiled.* Italian rye grass is mentioned as one of the best articles for feeding. It is cut four times in a season, yielding at each cutting a good crop. Lucerne is sometimes cut five times. The Scotch potato oat, and the Hopetown oat, are the varieties of this grain here raised. They yield an average of eighty bushels per acre, and weigh about forty-four pounds per bushel.

Great pains are taken in all cases to save the manure. Nothing is wasted. The animals are stall-fed, and only turned into a yard a few hours a day for exercise. Brick or stone tanks, well cemented, are sunk near the cow-stables and pig-sties, for the reception of all the liquid manure. "The contents of these tanks, on becoming full, are pumped into a small cart, with a sprinkling box attached to it, like that used for watering streets in cities, and distributed over the crops, always with the greatest advantage, and with effects immediately perceptible." All which Mr. Colman saw, convinced him that there is no necessity of impoverishing the soil, but that under the right management, it will keep itself in condition, and be ever improving. The allotment system, though so evidently beneficial to the poorer classes, is strongly opposed by the farmers in general. In relation to the causes of this opposition, it is alleged that the farmers are not willing to lessen the dependence of the laborers on them for support—that the great crops obtained under such nice cultivation, contrasted with those of the farmer, tend to throw the latter into the shade, or by proving what the land is capable of producing, may induce the landlords to raise their rents. Besides, it is said the farmers are unwilling to see the laborers appear in the markets in competition with themselves.

*Steeping Seeds.*—Considerable has been said, during the past year, of a mode of steeping seeds, introduced by Mr. Campbell, of Scotland. Mr. Colman introduced one or two letters from Mr. Campbell, in reference to this subject. The steeps he employs are sulphate, nitrate, and muriate of ammonia, nitrates of soda and potassa, and combinations of these. One experiment given, is in substance, the following: Some earth was dug up six feet below the surface, which was totally destitute of organic matter. It was sown with seeds which had been soaked in these solutions, and produced plants with seven or eight stems, each, while plants from the unprepared seeds produced no more than three stems each. They had not reached maturity when this statement was given, and of course the relative yield of grain could not be told.

At Horsham, in Sussex, some seed wheat, brought from Australia, was sown in rows nine

inches apart, and hills six inches apart, only one seed in a place. At this rate it took nine and a quarter pounds of seed per acre—at sixty-three pounds per bushel, one bushel of seed would plant more than six acres. The yield of this wheat was at the rate of seventy-one bushels per acre. Some of the straw was six feet high.

*Cranberries.*—Mr. Wm. Hall, of Norway, Maine, has succeeded in raising cranberries on a patch of boggy land. He sowed the berries, in the spring on the snow and ice. The seed took well, and entirely rooted out the weeds. Last year he gathered six bushels from a patch about three rods square, which a few years since was entirely useless. If this berry, which commands so high a price, can be as easily cultivated as this, it certainly is an object for farmers to try the experiment on their boggy land.

*Advantage of keeping Manure covered.*—An experiment, conducted by the president of an agricultural society in England, shows that manure which was kept covered by nine inches in depth with earth, so that no evaporation escaped, produced four bushels more of grain per acre, than the same quantity and kind of manure applied to the same extent and quantity of land, but which had lain from the 13th of January to the 4th of April exposed to the weather.—*Albany Cultivator.*

*Agricultural Exports.*—It will be seen from the following table of imports of American beef, pork, lard, and cheese, into Liverpool, the year ending August 31, that our exports of these articles from almost nothing three years ago, have become quite important; and what is more to the purpose, we think that they are very likely to increase in nearly an equal ratio for three years to come:

| | BEEF. | | PORK. | |
|---|---|---|---|---|
| | *bbls.* | *tcs.* | *bbls.* | *tcs.* |
| 1842,.... | 3,367 | ——— | 9,113 | 60 |
| 1843,.... | 5,157 | 2,083 | 8,001 | 33 |
| 1844,.. | 9,812 | 10,789 | 15,933 | 33 |

| | LARD. | | CHEESE. | |
|---|---|---|---|---|
| | *bbls.* | *kgs.* | *casks.* | *boxes.* |
| 1842,.... | 2,125 | 39,184 | 1,841 | 4,732 |
| 1843,.... | 12,326 | 22,857 | 2.105 | 3,619 |
| 1844,.... | 25,585 | 30,425 | 6,504 | 22,395 |

*Mummy Wheat.*—At the Farmer's Club, yesterday, a small bag of wheat was presented by Mr. Maxwell, and distributed among the members, which was the growth of a few seeds taken from an Egyptian tomb and the case of a human body, entombed 2,000 years ago! It is remarkable that the vegetative properties of these seeds should have been retained for so long a period—and if capable of being thus retained for that time, why not, under the same circumstances, for 100,000 years? The wheat seeds of the Egyptians have realized what the Egyptians hoped and believed in relation to themselves.—*N. Y. Amer.*

*Old Pickle for Pork.*—Some persons place a high value on old pickle for preserving pork, even as high as a dollar a gallon, as they find that it possesses superior properties for keeping the meat sweet and good. It being already charged with the juices of meat, it will not so readily extract them from a fresh lot with which it comes in contact. They who value this article so highly, saving it for six or seven years, will put down pork in the hottest weather in summer, with very little addition of salt, and it keeps perfectly cured. The pickle should not be scalded, but strained to take out the sediment or other matter.

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### Liming Land.

In the application of lime to land, it seems to me that one great object is generally overlooked. All the lime intended to be applied in one season is generally spread at once, thus leaving it in a kind of stratum, instead of being, as it ought to be, thoroughly mixed with the soil. Would it not be better to proceed as follows? Suppose you intend to apply sixty bushels to the acre. First spread twenty bushels carefully over the acre of ground; then turn the soil with the heaviest, or rather deepest, operating plough you have. Then spread twenty bushels more in the same way, and turn that in with a medium plough, passing across the previous furrow. Then spread the remaining twenty bushels, and harrow that in, or turn it under with a light seed-plough. This would effectually mingle the lime through the whole depth of the soil. Any one can see the reason of the thing, and the advantages of it—the only object of it being the labor, but that is not more than is requisite to bring the soil into the proper condition for seeding. If wheat or any small grain be intended, then the third application can be made at the time the seed is sown. I do not much like the usual plan of applying thirty bushels one year, and three or five years thereafter thirty bushels more, and so on, unless deficiency of means prevents the whole being applied the same year. The idea generally is, that, like manure, the first application is exhausted, or nearly so, in three or five years, and that then another application is necessary. I do not think the lime is exhausted, but the small quantity applied having been diffused through the whole of the soil by successive ploughings, the soil is not sufficiently calcareous. Now if we apply the whole quantity as suggested above, the soil to its entire depth will have become charged with it; and, if enough is applied, I do not believe it will be exhausted in less than twenty years, if then.—*Albany Cultivator.*

### Miscellaneous Notes.

☞ We are informed by a person on whom we can rely, that the Kalmia Latifolia can be grown successfully at Chillicothe, in the open ground; all that it needs is a barrel to shade it from the heat of the sun the first year. The same gentleman told us that the Rhododendron does also well with him planted in rather a moist place. There is a piece of information relative to these plants, which it is desirable should be known to those who wish to send on to the mountains for them, viz: that the Mountain Ivy, called by the inhabitants by that name, is the Kalmia Latifolia, and the Rhododendron they call the Mountain Laurel.

☞ It has been stated to us by an experienced farmer, and one who has paid much attention to horses, that the cause of the blind teeth is, that the growth of the tooth obstructs the small cavity that leads to the back part of the eye, and indeed fills it up, by which means the eye of the animal is affected in the way which is so well known both in the South and West of this country.

☞ We have received the first number of the *Ohio Cultivator*, edited by M. B. Bateham, at Columbus, Ohio. We hail the appearance of every new operator on the comparatively almost inanimate materials of which the great bulk of the farming community of the West is at present composed, with much satisfaction. The stirring up to activity and improvement of this immense mass by every means, both by new coadjutors and by the long established laborers in the field, can only redound to the general welfare and encouragement of all concerned. The first number of our brother and friend Bateham comes to us largely laden, to the amount of about three quarto pages, with the strongest recommendations of our Yankee brethren and eminent Eastern farmers. We rejoice at the advent of such a co-laborer as this; and we have no doubt that the efforts of our cotemporary when in the East were as worthy of praise as those of any other man who has ever labored, if not altogether disinterestedly, (and Providence has wisely ordained that none of us need work for nothing,) in a noble and worthy cause. Our friend Bateham will not, as he fears, be accused of boasting, and rendering himself liable to the charge of egotism; these things are only the natural consequences of being engaged, even in business, in so valuable an employment as the dissemination of agricultural information. We have been occupied in this way for these six years, at short intervals, in the Great West, not only in editing an Agricultural and Horticultural paper, but in publishing a Dictionary on these subjects, which, fortunately for the author, were not needed to be of so complete and lofty a character as to be unsuitable to the generally industrious, but not extensively informed farmers of this portion of the Union. And if we should ever remove, along with "the star of empire," farther "westward," we trust that when we inform our leading agricultural patrons and correspondents that such is our intention, we shall enjoy the inexpressible gratification of receiving from them some such testimonials and recommendatory letters as our welcome friend Bateham has had the happiness of publishing in his inaugural editorial address. One of the most pleasing features in agricultural efforts at improvement is, that all parties united in this admirable design, and indeed the whole social community, have but one interest in common; and we of the corps scientific or practical, reading or editorial, in this employment, cannot be urged on even by too strong commendations; we are all mutually linked together, whether to push forward improved stock, (really so,) new and valuable seeds, or economical and effective machinery and implements of all kinds, for ourselves or others, wherever we are, or whithersoever we bend our steps—provided we confine ourselves to legitimate objects, and do not launch out into mere fanciful objects or prices, or what are usually denominated humbugs. In summing up this rather lengthy notice of what we consider the true position of these matters and things agricultural, and of persons taking a leading part therein, we will only say to our good brother and friend Bateham, that whether we have the "disposition or ability," as he pleasantly observes, to go ahead in the spring with the *Western Farmer and Gardener* divided, as we have long ago contemplated and promulgated, into two works, one to be called the *Western Farmer*, the other the *Western Gardener*, or determine that our work should remain, for some time longer, as it is—half distinctly agricultural and half horticultural, or with eight additional pages, or altogether horticultural, we will try (for to do otherwise would be at least doing an injustice to the noble cause in which we are at length so successfully proceeding,) to obtain *half* of the fifty thousand farmers, who, as our highly esteemed friend most truly observes, ought to take an agricultural paper, and we will return the compliment of our brother by using his own words, and say to him, as he does to us, (and we do it with the utmost sincerity too,) that he is also entirely welcome to the other half of the fifty thousand subscribers in Ohio, "if he can get them."—We have no disposition to be improperly covetous, and must do ourselves the justice to assert, that as we are in an independent situation as regards means in a private point of view, as well as in the profitable standing of our publication, (for if it should be reduced to merely paying its own expenses we shall be content;) and moreover, we shall find abundant satisfac-

tion in continuing an humble, although we trust useful, instrument in promoting one of the noblest causes of the country.

☞ We had the satisfaction of observing at a late meeting of the Cincinnati Horticultural Society, that the resolution we offered to form a committee to draw up a petition from the Society to the Legislature to alter the law for the protection of fruit, which now makes it only a trespass or offence to steal it, to a law which will make the robbing of orchards and fruit-yards a penal offence, was unanimously approved of and carried. This will operate, when accomplished, to encourage the raising of fine fruits of all kinds.

☞ H. Huxley & Co. have just received invoices of two kinds of wheat, called the Lord John Russell and New Fenton, the best kinds known in England; also, a quantity of seed of the Meadow Foxtail Grass, (Alopecurus pratensis.) We quote the following notice of this grass from our neighbor, the *Plowboy*:—"This is a favorite grass in England, and is cultivated both for pasturage and hay, and is a native of Britain, and other parts of Europe, from which it has been introduced into this country. It is a very useful and valuable grass, for permanent pasturage, on a rich, clayey loam, with a good supply of moisture, and should never, observes Mr. Sinclair, form less than one-eighth of any mixture of different grasses prepared for this purpose. It constitutes part of the produce of all the richest grasses in England. It is slow in coming to full perfection, so that a field of it should stand and be mowed, or pastured for several years, which will suit our farmers in the West well, as many of them take no care of their meadows whatever, letting them lie from twelve to sixteen years without change. This grass is of early growth, very productive, of good quality, and highly nutritious, grateful to most cattle, and may be mowed with advantage twice a year. Few, if any, grasses possess more valuable properties than this; it is not only remarkable for its early growth, but equally so for its lateness. In certain situations, it may not unfrequently be observed in a vigorous growth from the end of March till very late in Autumn. In those pastures where it forms any considerable portion of the herbage, the treatment pursued is often at variance with those means best calculated to secure the full amount of advantage, which, with judicious management, its very excellent properties are calculated to supply. In such pastures, the most prevalent evil is, in allowing it to become too gross before the cattle are turned in to eat it down; in consequence of which it may be observed, that a large portion is left untouched by the cattle until autumn or winter, by which this and some other species of rapid growth will have extended themselves and taken the place of the less luxurient kinds, thereby destroying one of the most essential qualities which pasture land ought to possess, that of an equal and extensive mixture of grasses. A similar error is often committed when it is intended for hay, by delaying the mowing season long after it has attained maturity. It should be cut for hay in early flowering; it will then give a more tender stalk, and nutritious and delicate hay. From the excellence of our well known Timothy, the farmer should not be prevented from giving this grass and others a trial. We are in hopes our farmers and planters will give us their experience in the cultivation of the grasses, as there is a great want of information on this subject."

☞ Mr. A. Randall has handed us a neat pamphlet, containing the first year's proceedings of the Hamilton County Agricultural Society, and report of the Annual Exhibition, since organized under a law of the State, held at Mount Pleasant, on the 19th and 20th of September last, with the address of Col. William H. H. Taylor. It is only due to Mr. Randall to state, that this publication has been got up at his own expense, and therefore he is entitled to much credit for his spirit and zeal in the cause of agriculture. Indeed, Mr. Randall has taken a most active part in pushing forward the interests of the Society ever since its formation. It was through his efforts that the Agricultural Survey of Hamilton county was made. His exertions are of much value, and are still employed in forwarding the valuable objects of our Association.

*The Smithsonian Bequest.*—At this time, the interest due to the Smithsonian Bequest Fund, by the Treasury of the United States, amounts to $160,000, and the whole fund to $690,000. It will be a matter for earnest discussion during the present session of Congress, as to the best means of applying this money. About four years ago, when appointed a delegate to represent the Agricultural Society of Campbell county, Kentucky, at the State Agricultural Society at Frankfort, in the same State, we proposed a resolution at the meeting, to petition Congress to appropriate a portion of the Smithsonian Bequest for the promotion and diffusion of agricultural knowledge among the States of the Union by some proper institution, and perhaps a model farm at Washington.—This was approved of by the meeting, and a committee was appointed to draw up a petition to this effect, to be entrusted to the Representatives of Kentucky in Congress. Nothing, as might have been expected at that early day, for the due appreciation of legislative aid to agriculture, came of this petition. Now that the whole country is awakened to the importance of agricultural improvement, we think that by proper measures being pursued, something may ere long be done by our legislators to give an impulse to the great and fundamental interest

of the country. What better appropriation could be made of money left to this country for the diffusion of knowledge among the people at large, than by applying a portion at least of this magnificent fund to the benefit of the agricultural cause? We trust that this immensely important matter will not escape the attention of the people and of their representatives, and that we shall soon see some action on the subject, and not merely idle talk. If agricultural knowledge can be impelled forward to a much greater extent than it is at present by legislative aid, that is sufficient reason why it should be immediately given. This interest covers more ground than any other in this country.

*Cement.*—Two parts ashes, three clay, one sand; this being again mixed with oil, resists the inclemency of the weather better than marble itself.

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### Analysis of Soils.

Having given Mr. Charles Whittlesey three samples of soil from our farm two miles back of Newport, in Kentucky, to be analysed, we can certify to the correctness of the analysis as far as our observations have extended, and the crops they bore have proved. The following is Mr. Whittlesey's communication on the subject.

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CINCINNATI, Ohio, January 15, 1845.

*E. J. Hooper, Esq.*

Sir,—I have completed the examination of the vegetable and mineral constituents of three specimens of soil from your farm two miles Southeast of Newport.

They are taken as per statement, within an area of about ten acres.

No. 1.—*The Richest.*—From wild land,—timber, beach, poplar, and pawpaw.

No. 2.—*Medium.*—Ten years in cultivation—two light dressings of stable manure—crops, potatoes, corn, and raspberries.

No. 3.—*Poorest.*—Worn down by twenty-five years cropping of corn and oats, with one or two crops of clover.

All possess a geine of the fineness of mustard seed—no gravel—color, dark brown.

No. 1.—*Composition.*

| | |
|---|---|
| Water not expelled at 180° Fah.,... | 2.00 |
| Oxide of Iron,..... | 0.30 |
| Carbonate of Lime,..... | 2.74 |
| Vegetable matter,..... | 13.50 |
| Earthy residue,..... | 81.46 |
| | 100.00 |

No. 2.—*Composition.*

| | |
|---|---|
| Oxide of Iron,..... | 0.43 |
| Carbonate of Lime,..... | 3.97 |
| Vegetable matter,..... | 4.57 |
| Earthy residue,..... | 90.03 |
| Water,... ..... | 1.00 |
| | 100.00 |

No. 3.—*Composition.*

| | |
|---|---|
| Oxide of Iron..... | 0.31 |
| Carbonate of Lime,..... | 0.76 |
| Vegetable matter,..... | 3.10 |
| Water,..... | 1.37 |
| Earthy residue,..... | 94.46 |
| | 100.00 |

The earthy residuum consists principally of sand and clay, generally termed "granitic sand," and is not supposed to furnish food to plants. The relative quantities of sand (or silex) and clay, (or alumine,) were not determined; but in No. 1, the sand is about sixty per centum, very fine; Nos. 2 and 3, sixty-three to sixty-five per centum, also fine. The clay of No. 3, is largest, or about thirty-four per centum.

The salts taken up by digestion in strong acids, are considered, by agricultural chemists, as representing the soluble, and in general, the valuable portions of the mineral constituents. But there are frequently small particles of undissolved lime, that might be reduced by a severe process. They form a calcareous sand, which eventually would assist vegetation, and in all the three soils submitted by you, there is a residue of this kind embraced in the true earthy matter, but it is less than one-half of one per centum.

In drying or baking soils to expel the water of absorption, I have regulated the heat to two hundred and fifty degrees Fahrenheit, as near as practicable, because in rich soils the usual degree of three hundred consumes some vegetable matter. There is, therefore, a loss in vapor or water, which I enter in the column of composition.

The item of vegetable matter is frequently separated into soluble and insoluble geine, and is generally found to be more than half vegetable. The proportion of soluble vegetable extract depends upon the condition of the soil at the moment, and when given does not show the permanent state of that kind of matter. If the vegetable matter is present, and alkalies are supplied, it rapidly becomes soluble and useful. A strict and perfect analysis would not only require the separation of the geine compounds, but an examination of the several acids which compose them,—an operation too delicate and tedious for an Agricultural Laboratory. Almost all soils contain a minute proportion of other alkalies besides lime, such as potash, soda, and magnesia, but in quantities so minute as to escape ordinary researches. The above soils

show no appreciable quantity of any of them, except magnesia, and of this a mere trace. As the stalks of Indian corn contain a large proportion of lime, that alkali appears to be essential to a good crop. No. 2, is best supplied with lime, though rather deficient in vegetable matter. In No. 1, the relation is reversed, and the vegetable ingredients predominate. In No. 3, the vegetable matter is low, and the lime, or rather the carbonate of lime, below the standard for a good upland soil. The proportion of clay is larger in this than the others, which tends to make it bake and throw off water. With two strong crops of clover turned in, this may be made light and productive for a time. No. 2, is a good soil, requiring manure.

Yours very respectfully,

CHARLES WHITTLESEY.

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### Corn.

*Mr. Editor*,—I have read in your paper what is considered here extravagant statements in reference to the yield of corn per acre,—say from one hundred to two hundred bushels. I believe the statements to be true, and should be glad to convince my neighbors by a specimen of such crops.

I will make a few inquiries, which, if you will answer, and give any other information on the subject, may be useful.

My land is gently rolling, has about four inches vegetable mould, underlaid with yellow clay, and would yield perhaps fifty bushels per acre, with common tillage.

1. What sort of manure would be best for such land, for corn?

2. Would leached ashes, or lime, benefit a crop, if mixed with stable manure?

3. Does the yellow clay contain any lime, and would it be beneficial to plough deep, in order to mix the yellow clay with the vegetable soil?

4. Should the manure be ploughed in, deep or shallow?

BEECH FLATS.

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EDITOR'S REMARKS.

(1.) A dressing of lime.

(2.) It is to be supposed that all vegetable mould contains the fundamental principles of ashes, being the residue of decayed plants, but probably an addition of ashes, as well as lime mixed with stable manure, would be a beneficial compost.

(3.) Most of our Western clays contain a small portion of lime. We have no doubt it would be a good plan for several years to plough up, say two inches of the subsoil, to mix with the vegetable mould.

(4.) This will depend in a great measure upon what is desired, whether an immediate effect upon the next crop, or upon future ones, and also upon the state of the manure, whether fresh or decomposed. If an effect is desired as soon as possible upon the next crop, use well fermented manure, and cover it shallow; if for future crops, use fresh manure, and cover deeply. It is not easy to give precise directions, without a correct analysis of the soil itself. We refer our correspondent to the rather imperfect analysis of our farm, (see preceding page,) as the soil, from description, appears very similar; and the deficiency in both cases appears the same, particularly in the analysis of soil No. 2.

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### Lime.

A gentleman in Virginia said, three years ago, that he had taken the Cultivator one year, but would never take it again. But why this hostility to the Cultivator? Is it not the farmer's friend? "Yes, it had my confidence; it recommended the putting of lime on land, and I followed the recommendation, and lost fifty dollars by it. I put on eighty bushels to the acre, and it is all lost—worse than lost, for it injured the land."

But what is the sequel of the case before us? Why, the lime has had time to be well mixed with the soil—has proved itself to be equal to all that was claimed for it in the once execrable article, and the gentleman now thinks he will not be fifty dollars the worse, but one thousand dollars the better for taking the Cultivator. It is needless to tell you he is now an advocate for agricultural papers.

Permit me here to mention another instance of the value of calcareous manure. Major A. Stuart, Augusta county, Virginia, four years ago gave a part of a field a liberal dressing (the quantity per acre I don't know,) of marl, which is abundant on his farm. The first year he noticed its effects carefully, hoping to see an improvement in the crop, but he was disappointed, for the effect he thought was rather injurious, and being thus disappointed, he concluded the marl was worthless to him, and don't recollect to have noticed any effect from it the second year; but the third year he was called upon by such visible tokens of improvement in the clover crop which was on the field, that he could no longer be indifferent about the marl. This year the field being in wheat, he found the improvement still greater, the difference being as three to one in favor of the marled portion of the field, and this difference being attributable wholly to the action of the marl. This soil is a ferruginous clay, abounding in lime rock, which, as you are aware, is the case with most of the land in the valley of Virginia. Is it not a general opinion that on limestone land calcareous manures are not beneficial?—*Albany Cultivator.*

### The Past, Present, and Future Prospects of Farmers of the West.

When we look back at the past, we are struck by the remarkable alterations in the pursuits of the people, and by the changes in the prices of articles.—Many years ago, a few fine sheep were brought to Kentucky, and sold at enormous prices. These prices are gone, but the flocks of the state remain permanently improved. Fine horses commanded also at several times the value of a good landed estate. These too have greatly diminished in price, yet the whole stock of the state has been improved by their introduction. The mulberry mania, the *cow* pox, and the *swine* fever, succeeded. The high pressure prices for all engendered by them have passed away. Yet silk is now made, and the herds of cattle and hogs have been greatly improved. The temporary evil is gone, and much permanent good remains behind to benefit the people. The prices of lands, grain, hemp, and stock too, were constantly varying from high to low. No calculations as to price, could be safely made; no engagements dependant on the sales of agricultural products were free of ruinous peril. Many persons, when hemp sold for seven and eight dollars per cwt., and beef for five and six cents per pound, made pecuniary engagements predicated on these prices, and were hopelessly involved. Now a change has come over the spirit of *our dream*. Shall we profit by it? Good land, it is true, is still held at high prices. But all the products of farming labor are very low, and find us under the dominion of habits produced by high prices. This is our present state and condition.

We talk about governmental economy, and we must practice it at home in our families, or suffer. Retrenchment of expenses is the only safe remedy for the evils of diminished revenue. We must avoid the grocery and the dry goods store, eat and drink what the farm produces, and wear what our wives and daughters spin and weave. Domestic manufactures require no protection, and have but one opponent—*False Pride*. But he is stiff-necked and obstinate as a mule. When will the present dull and flat state of things cease? What causes are at work to produce a better? None visible in the vast horizon. The nations of Europe are at peace, producing their own supplies, except of cotton and tobacco; while the agricultural products of our own country are increasing in a ratio far greater than the demand for them abroad, or than can be produced by the diversion of all other classes at home from field labor. If products for sale cannot be made to command remunerating prices, they will cease to be made, and the importing merchants will be informed of the true state of the country, by the difficulty of collecting from their retailing customers, who sell to the people, and by their inability to dispose of recent importations. People necessarily cease to buy when they are unable to sell wherewithal to pay. If we sell at home, we must buy at home; for we shall have nothing to send where there is no demand. We must then cease to use imported articles, unless our exports will pay for them; exports of productions, I mean, for the money of a country is soon exhausted, when it imports and pays in money. We must then export in productions or manufactures, if we consume imported articles. So far as our manufactures at home can supply us with needed wares at fair prices, there is no necessity to the consumer, so far as he is such only, for imported wares. As the home supply of manufactured articles increases, the importation of them necessarily decreases, and when we reach the ultima thule, the extreme end of a full supply, what then? We must look to the future as well as back, at the past from our present position. For verily the farmers are deeply interested in these matters, and certainly their consideration is not out of place in an agricultural paper.

For the present, the fever for speculation and the rage for riding hobbies excited by comparatively high prices for our produce, have both subsided, nor will they again become epidemic, till higher prices come round again. That may not happen shortly. In the mean time, we must make the most of our diminished resources by economy and good management. To produce the most at the least cost to the land and the pocket, is the highest interest of every cultivator of the land, and this cannot be done without *knowledge*. This is the time then to foster all the means of acquiring it. Farmers' clubs, agricultural and horticultural societies, agricultural papers; and above all, to institute agricultural schools. Science, through the aid of institutions, is brought to every art except that of agriculture; and this, the most important of all, is left to empirical tentative practice.

Who are the best framers in every country? The most ignorant? Certainly not. There cannot be half a dozen *best ways* of doing the same thing under similar circumstances, requiring different amounts of

time, labor, and expense. Yet we see them practiced by men who would all adopt one way if it was proved to be superior to all others. Agricultural schools would demonstrate by repeated and accurate experiments, problems in practice which the cultivators of the soil would as certainly use, as the house carpenter now uses the forty-seventh proposition of Euclid in squaring his work. Is it not strange that among all the munificent donations made by wealthy, patriotic, and public-spirited men for such a variety of purposes, not one has conferred an enduring benefit on his country, and immortalized his own name, by endowing an agricultural institution? Whoever shall raise up such an institution in his lifetime (not leave it to his executor), will be entitled to, and will receive the admiration and gratitude of countless generations.

JOHN LEWIS.

Llangollen, Ky., Nov. 10th, 1844.

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### Sheep for the West.

BY JOHN MAHARD, JR.

Wool growing in the West seems to be the leading theme with many of the farmers. We have a range of country and a climate well adapted to the habits and constitution of these animals. The facilities for growing wool in this State are probably superior to any in the Union, and a number of our enterprising and wealthy farmers are going largely into the business, if we are to judge from the large flocks of sheep imported from Pennsylvania and Ohio the present season. One flock of upwards of three thousand head passed along the other day, for the neighborhood of Island Grove. They were principally Merino and Saxony; and notwithstanding they had been on the road two months, looked well.

This is only the second year of my residence in this State, but from all the information I receive, sheep thrive as well here if not better than in any of the Western States. The editor of the Tennesee Agriculturist recommends the mountain region of North Carolina and Tennesee as being the most suitable for growing wool; and no doubt it is, as the winters are much milder than in this State; but who is going to make such a sacrifice as to be cut off from society and repair to those uninhabited mountains to grow wool? It may do one hundred years hence to talk of such an enterprise. There are no bounds nor limits to the pasture on the Illinois prairies. And as it regards wintering sheep, it can be done at a very moderate expense: prairie hay can be hired cut and put up in stacks at about $1 50 per ton; turnips can be raised in any quantity. The wool can be sold for cash at the farmer's door, to our merchants, and it serves them for currency when they go East to purchase their goods.

I have noticed a letter published in your paper a few months ago by Geo. Flower, Esq. who is engaged in wool growing in the southern part of this State. In that letter he informs us that a company is formed in Boston, with a capital of a million of dollars, for the purpose of manufacturing "Mouselin de Laines," (a muslin of wool) and that this fabric requires wool of a very different quality from any hitherto grown in considerable quantities in the United States. Mr. F. mentions the fleece of the long Leonesa as being suitable for combing. I have never before heard of that kind of sheep. All the fine wool sheep I have ever seen had fleeces of a short staple of about three inches. "The Complete Grazier," an English work, speaking of the different qualities of wool, remarks:

"In describing fleeces of this country, Mr. Luccock divides them in two classes—the *combing* and the *carding* wool, which are mutually distinguished by the length of the staple and the mode of manufacturing them, the one being suited to the fabrication of worsteds, and the other to the making of woollen goods. The sheep from which these different kinds of wool are obtained do not run promiscuously in the same flock, nor graze upon the same pastures, each being most commonly found upon its appropriate soil, and under a peculiar management. The Cotswold sheep are well known as one of our most valuable old long-wool breeds; they were the pride and the treasure of our country many a year ago. They have been lately improved by crossing with the Leicesters."

The celebrated Bakewell made a further improvement on the Leicester sheep: their fleece is much finer and looks more like floss silk than the Cotswold or any other long-wool sheep that I have seen. When I came to this State I brought five ewes and one buck of the pure Bakewell with me. I procured them of an Englishman who imported them, a Mr. Wardle, living near Cincinnati, Ohio. The fleece of one of my buck lambs, shorn in August, when he was five months old, weighed eight and a quarter pounds,

I have now eight bucks (this year and last year's lambs) on hand, and if any of our wool growers wish to go into the busi-

ness of growing long wool, I can spare a few of them at a less price than they could be imported from England.—*Prairie Farmer.*

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### Proper Depth of Seed.

Various experiments have been tried to determine the proper depth at which seed should be put. The following is the result of an experiment with Maize, or Indian corn. That which was planted at the depth of—

| | | | |
|---|---|---|---|
| No. 1. | 1 inch, | came up in | 8½ days. |
| 2. | 1½ " | " | 9½ " |
| 3. | 2 " | " | 10 " |
| 4. | 2½ " | " | 11½ " |
| 5. | 3 " | " | 12 " |
| 6. | 3½ " | " | 13 " |
| 7. | 4 " | " | 13½ " |
| 8. | 4½ " | " | — " |
| 9. | 5 " | " | — " |
| 10. | 5½ " | " | 17½ " |
| 11. | 6 " | " | — " |

The Nos. 8, 9, and 11, were dug up after twenty-two days, and it was found that No. 8, had an inch more to grow to reach the surface of the earth. Nos. 9 and 11 had just sprouted, and were short, and three inches below the surface. No. 10, came up in seventeen and a half days, but the tender leaf remained only six days green, and then withered. There is no experiment which shows more clearly the advantage of a shallow planting in a soil not too loose and trodden down than this. The more shallow the seed was covered with earth, the more rapidly the sprout made its appearance, and the stronger afterwards the stalk. The deeper the seed lay, the longer it remained before it came to the surface. Four inches was too deep for the maize, and must, therefore, be for yet smaller grain kernels.

Petri gives an experiment made on rye, with the following results. The first column shows the depth at which the seed was put; the second, the number of days that elapsed before it appeared above ground; the third, the number of plants that came up.

| Depth. | Appeared. | No. of Plants. |
|---|---|---|
| ½ inch, | 11 days, | ⅞ |
| 1 " | 12 " | all |
| 2 " | 18 " | ⅞ |
| 3 " | 20 " | ¾ |
| 4 " | 21 " | ½ |
| 5 " | 22 " | ⅜ |
| 6 " | 23 " | ⅛ |

The root stock forms itself next below the surface of the ground, and if we place the grain deep, it must first put its sprouts to the surface, and form its side branches in a nearer connexion with the air. We never find that the sucker roots are ranged from below to above, but the contrary.

From the experiments of Ugazy, who tried seventy-six, with different grains, it is clear that shallow sowing, if the seed is only so far covered as to sprout, and the germ is protected from immediate contact with the air, is preferable to laying the seed deep, because it springs up quicker, and acquires a stronger growth, and has hardier plants.—*Burger's Economy of Farming.*

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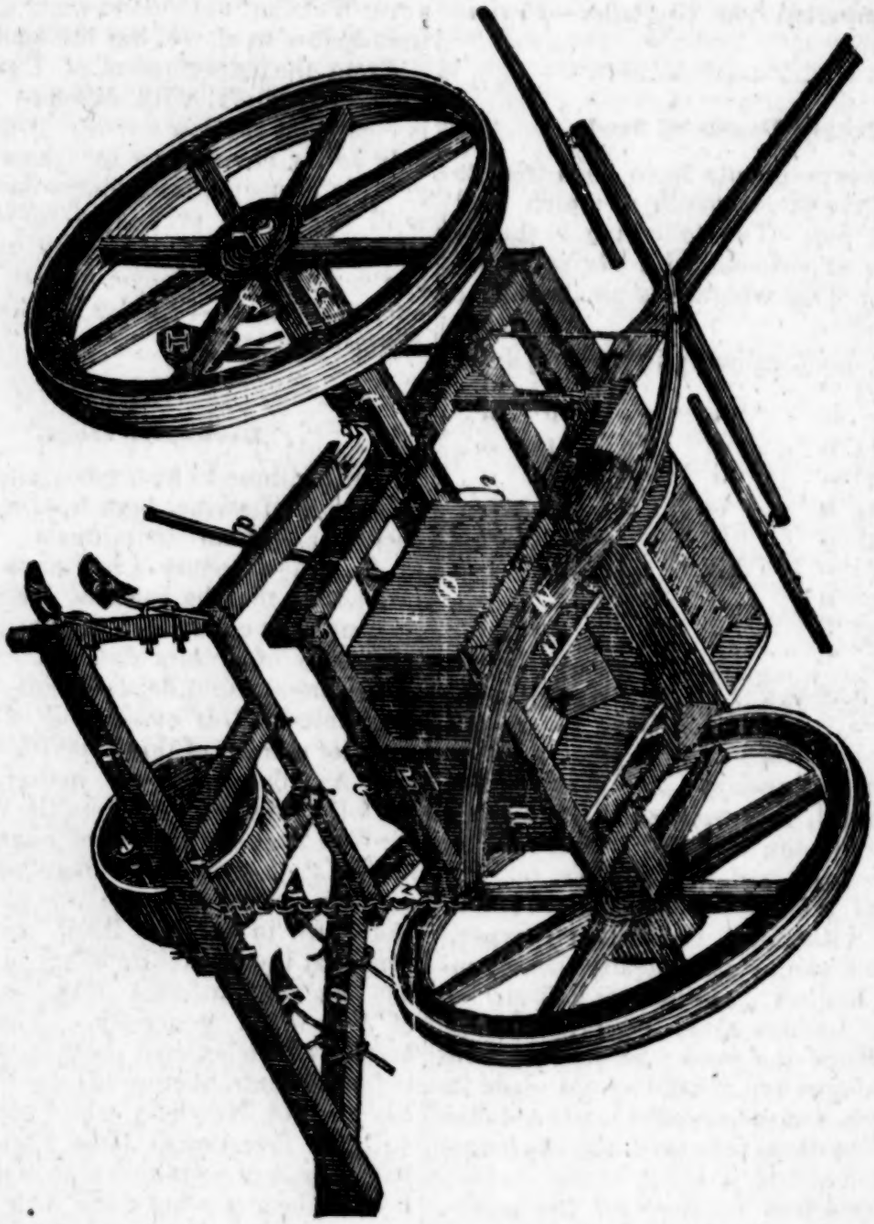
### Berkshire Hogs.

We continue to hear complaints against this breed of swine, both from agricultural papers and from individuals. A farmer in Du Page county a few days since informed us that he believed their introduction into that county had been at least some thousands of dollars damage. Of course the damage would depend upon the breeds supplanted. Our opinion, as expressed in a former number of this paper, is not changed. As illustrating the matter, we copy the following from the Monthly Visitor:

"The Berkshire breed of hogs, for some reason, do not retain the popularity of four and six years ago. Although the clear Berkshire is not now liked, we are confident that the Berkshire blood in this State has much contributed to the improvement of the breed generally. The Byefield breed, which existed here several years before the introduction of the Berkshire—like the old Newbury white potatoes—are still the favorites of most Farmers. We have a pair of hogs this season which from their appearance are more than half Berkshire, which do better credit to their tender and keeping than any two we ever raised: we purchased them for their good breeding, at an extra price of one third, when about six weeks old. On a recent visit to the Shakers at Canterbury, we selected and purchased at three dollars and a half each at the age of about three months, two more for the next year, having also a sprinkling of the color and character of the Berkshires. The two largest hogs are the most quiet and least difficult creatures of the hog kind we have ever owned: they are a sow and barrow, and the sow is evidently the largest. They have eaten with a good appetite whatever has been given them—they have not been great manure workers, but seem to have enjoyed themselves in indolence, rising and being active only at the times of feeding."—*Prairie Farmer.*



**Mottmiller's Patent Seed Planter.**

We refer our readers to the advertisement on our cover for the description of this, for large corn raisers or planters, very valuable machine. The testimonials given of its efficiency, strength, and speed of operation, are from practical men of the first respectability in the State. One great merit in this machine, is, that corn can be drilled or planted by it so that it can be ploughed both ways,—a point in which other machines of this kind have hitherto been deficient. A *Cultivator Plough*, the invention of Mr. Mottmiller also, can be attached to it. The right to use this, is given by the Patentee of the Seed Planter. We understand Mr. Mottmiller will warrant his implements. They will be ready by the first of March next.

From the New York Observer.

### Age of Apple Trees.—Do Natural Trees outlive the Grafted?

"Apple trees live to a great age. There is a tree on Peak's Island, in Portland Harbor, that has been known to bear fruit every season for more than a hundred years."

The above paragraph was in your summary of last week; and as I observe you have a small agricultural department in your paper, I take the liberty of submitting a few remarks suggested by the above extract.

The fact stated is unquestionable. I can well remember when it was a common thing to see apple trees not only of vast age, but of immense stature. When I was but a child, I can distinctly recollect the remains of an orchard on my father's farm, the principal part of which the British had cut down for fuel. Eight or ten trees only remained, a venerable cluster in one corner of the field. Almost every tree was not far from two feet in diameter, and in form more like the lofty wide-spread oak, than our present apple trees. Some of them were from forty to fifty feet high, and of proportional breadth. I can well recollect also, the gradual decay of these early tenants of the virgin soil, and the remarkable tenacity with which they clung to life. As one large limb after another decayed and fell, new and vigorous young shoots would spring forth and grow with astonishing rapidity. I recollect one tree in particular, till nothing but a hollow trunk, reduced to a perfect shell, about eight feet high, remained. And yet this apparently lifeless cylinder sent forth strong shoots near its top, which grew and bore fruit for many years. And it is now but a few years since the last remains of this ancient orchard were eradicated from the soil.

What rendered the longevity of these venerable trees the more striking was, that on this same farm was another orchard of ten acres, that had been set out with great care, only a few years before the revolutionary war, and was then too small to tempt the depredations of the enemy, and these trees long ago put on the appearance of premature old age; and now scarcely a solitary tree remains to remind one that the ground was once an orchard. In fact, it is many years since it lost that name. This orchard, I may add, had been grafted with great care, with a choice variety of fruit, and when I first knew it, was flourishing and productive. I have stated these facts with some particularity, for the sake of suggesting some inquiries, as the following:

Is it common, now-a-days, to meet with very large and aged apple trees, except where they were set out on the virgin soil of the country? And if not, as I suspect will be found to be the fact, to what cause is the decay of our later planted orchards to be ascribed? We know by sad experience that many other kinds of trees which once grew in all these regions almost spontaneously, and bore fruit abundantly, as the peach and plum, for instance, now require to be cultivated with the greatest care, and even then are exceedingly short lived. Many a time when I was a boy, have I, after eating a peach, said to my companions, I will now plant this stone, and if my life is spared, in three years I will eat of its fruit; and as often have I realized the fulfilment of the prediction. In those days, our hedges were loaded with peaches, which, from their mere abundance, the very hogs disdained to eat, except to crack the stone and eat the pit! This fact I have witnessed with my own eyes. Why, then, has it become so difficult to raise peaches? Is it to be imputed to any change in the climate? or to the exhaustion of some particular property in the soil? And does not the same cause operate on our apple orchards?

But there is another inquiry which I wish to submit. Are not all these large and aged apple trees the production of *the natural fruit?* Can any man point me to an apple tree one hundred or even seventy-five years of age, that was grafted, as our present method is, on the stock, or that is grafted in any way? Every man knows that a grafted tree is merely a continuation of the old one; and therefore, though its existence be prolonged by insertion into a new stock, it will, notwithstanding, in a few years put on all the appearance of premature old age; and the sooner, as the process of grafting has been the more frequently performed with the same variety.

We have become so fond of grafting and budding, that most men disdain a natural tree, however vigorous, except for a stock to be tortured and murdered; or, if success attend the transformation, to be consigned to an early death. But is this extreme wise? Where did our delicious grafted fruit come from at first? And although the seed will not all produce the same variety, yet some of it will, or others still more excellent.

I will venture then to suggest in conclusion, that if we would cultivate more natural trees, of all kinds of fruit, and let them stand till "by their fruits ye can know them," and then preserve the good and destroy the bad, we should not only obtain new and improved varieties, but greatly prolong the life of our trees. On the present procedure, one thing is certain as the course of nature—our finest fruits must soon fail. Of this we have striking evidence in the general failure of the Newton Pippin, which was once as universally fair as oranges, and of a large size, but now often small and knotty. Other examples might be given; but I must stop—my sheet is full.

A LONG ISLAND FARMER.

### Grape Vines.

A descriptive account of an improved method of planting and managing the Roots of Grape Vines. By Clement Hoare. *Longman.*

The results of Mr. Hoare in the management of vines are so wonderful, considering the simple means he takes to produce them, that we should be inclined to view his assertions as too marvellous for belief, if we did not know that he is himself one of the most successful cultivators of the vine who ever lived in England, and if he did not assure us that he "has not recommended any point of culture the merits and advantages of which he has not himself for years repeatedly and carefully tested." We glance at a few of the principal topics in this ingenious treatise, which we earnestly commend to the notice not only of the horticultural world, but of every one who loves a garden, and desires to see it yield at a very small cost an ample supply of delicious grapes.

For the management of vines in green-houses, Mr. Hoare strongly reprobates the practice of planting the roots in richly-manured borders. His theory is, that grapes are formed and brought to perfection, not from any nourishment received from their roots, but by solar heat and light alone, and that the roots of vines in this country are so far from requiring any stimulative power, that they require to be checked, that the growth of the branches may not be too rapid. This check, he explains, is afforded in warmer countries than our own by the greater dryness of the climate and the superior heat of the sun, so that the tops of the shoots as they advance in growth are turned into a kind of jelly, and rapidly harden into wood, which thus becomes firm and close in texture, and bears buds at very short intervals. But from that check not existing to the same extent in England, our climate being more humid, and our sun less fervent, the vine has a natural tendency to luxuriance in growth, the branches are long and tender, and the buds on them at much longer intervals. This theory is explained with delighful clearness in Mr. Hoare's treatise, and illustrated by a decisive example:

Some few years since the author received a bundle of vine cuttings from one of the most celebrated vineyards in Spain. They were the entire growth of the year, as each had a portion of the preceding year's wood attached to it. The longest shoot measured eight and a half feet, but the average length was about eight feet. The wood was perfectly cylindrical, and of the closest texture, and almost as hard as heart of oak. The buds were large, prominent, and highly symmetrical, and stood out in bold relief on the sides of the canes. They were produced so near to each other as to be only one and three quarters of an inch apart. Now, a corresponding shoot produced in this country by an established vine would be about twenty-five feet in length, and the buds would be, on an average, distant from each other betwixt four and five inches. The shoots produced in these different countries, therefore, would each contain pretty nearly the same number of buds; and the question immediately arises, what was the cause of the great disproportion that existed in the length of these shoots? Simply, no other than the greater intensity of the light and heat which the Spanish shoot enjoyed over the English shoot. Nature was as long manufacturing one and three quarters of an inch of wood in Spain as she was four and a half inches in this country; but then, in the former instance, the bright light of the sun, and the intensity of his rays, would not let the shoot go ahead. Their united influence caused it to linger in its growth, and its watery sap, therefore, was turned into a jelly-like substance almost as fast as it was produced, and then fine fruit buds were the natural consequence. And these shoots may be considered as types of all others produced within the vinous latitude.

It follows, then, that in England the roots of vines do not want stimulating, but that the soil for them should be like that which they enjoy in the finest countries, dry, rocky, and warm. He considers it extremely detrimental to a vine that its roots should be in a soil where perhaps the temperature is 35 or 40 degrees, while the branches should be luxuriating in a temperature of 70 or 80 degrees. He would, therefore, for all vines in green-houses, prepare an artificial bed for their roots, as he prepares an artificial climate for their branches and fruit. The principle on which he would form this bed, for we do not here pretend to enter into details, is that of making a pit in the earth, three feet deep, and four or five feet square, lining it with solid brickwork, so that the roots of the vine shall not pierce through, and filling it with broken bricks, and mortar, charcoal, and bones. These materials should be used in equal proportions, without admixture of any other substances. The bricks should not be too hard burned, and the mortar should be old. Those, with the charcoal, should be in lumps, about the size of an egg. The bones, if hollow, should be broken in half, that the roots may creep into the cavities. Any will do, but they should be of animals that have arrived at maturity, from their greater hardness. These substances should be well packed, and the vine root carefully placed in them. The flooring should be of firm brickwork, with one row of bricks loosely laid, that they may be taken up to afford the roots moisture when required.

The result of this treatment is that the roots, being furnished with the largest possible extent of surface, and with the best nutriment in the shape of bones, will give vigor to the vine, and that grapes will be produced six weeks earlier than on other vines, while the bed will last good, if not for ever, for an immense number of years.

All this part of the treatise may be read with much advantage by those who possess greenhouses. We come now to that more novel part of the volume, intended for those who would like with little cost or trouble, to grow grapes in the open air.

In commencing this part of his subject, Mr. Hoare lays it down as a rule, that the roots of a vine will strike equally well upwards as downwards. The great requisites for the soil are warmth, moderate dryness, and great extent of surface. He proposes to secure those requisites by building of good brickwork a hollow column, three feet in diameter, and five feet high. He prefers circular erections, because the vine may be easier trained, and during the height of summer the sun will shine all round it. The base of this column should be formed of solid brickwork, level with the earth, and four feet square. When that is finished, the erection of the column should be commenced on it; half bricks will do, if they are perfectly strengthened at four equally distant parts of the circle by one course of whole bricks. When two courses of bricks have been thus laid down over the foundation of brickwork, the interior of the column should be filled with the substances before described, broken bricks, old mortar, charcoal, and bones, all being closely packed. A half circular hole should now be cut in a brick on that side of the column facing the south, for the stem of the vine to be brought through. It should be one inch and a half in diameter, and the like hole should be cut in the brick meant to fit on it, so that the cavity may be round, and the dimension of it one and a half inch. The vine should now be planted. It should be three years old, and the bole of earth round the roots be loosely bound round with flannel well soaked in soap-suds. So much of the stem should be left outside the column as contains three good buds. The soil should be a little raked away for the roots to lie in, and the substances should then be packed closely round the roots, care being taken that they are so placed that no mice shall creep in through the hole made for the stem of the vine to pass through. The next course of the bricks should then be laid on, the soil being filled in as the column rises within three courses of its intended height. Then a course of bricks is laid over the well packed substances at top, being jointed with mortar only, and not laying a bed of it. With two more top courses the column will be finished, care being taken so to lay them as that they shall slope towards the centre of the column, forming a cavity to catch moisture, which piercing through the brickwork, will descend to the soil. In this cavity mignionette or any shrub of the kind may be placed, which will give it a pretty finish, and hang over from its top. The hole for the stem of the vine may be filled in with moss to give it a pretty appearance. As the vine grows, it is to be trained round the column, and, with moderate care, Mr. Hoare asserts, may be made to bear fifty pounds of fine grapes in one season. The cost of the column, he believes, should not exceed 25s., but we hardly imagine it could be properly erected for that sum.

It is easy to believe that such columns, when erected in suitable situations, and the vines are well trained around them, and clusters of grapes appear, must add to the beauty of grounds. They may be planted singly or in groups; and the cost is so slight, and the gain in fruit, according to our author, so certain and so large, that the experiment is well worth trying. We have but given an outline of Mr. Hoare's plan. Those who are desirous of further information must consult this pleasing treatise. They will find it full of instructive details, the result of extensive management, directed by an intelligent mind, and of long experience. The manner of the remarks is clear and pleasing, and the whole treatise of eminent utility to those who have the care of vines, or who propose to engage in their culture.—*Britannia.*

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### Fall Planting of Fruit Trees, &c.

Messrs. Editors—It is, I believe, a question undecided among horticulturists and cultivators of fruit, respecting the fall planting of trees, in contradistinction to the old and general opinion of planting in the spring, just before the trees are in a state of vegetation on coming into leaf. For one, I am an advocate for the former method, on condition that the business is well done, and the ground is in good order, and not in a low wet situation, so that the roots will *rot* or perish during the fall rains and those early in the spring; such locations I would prefer to remain for spring planting; but where the ground is of a dry mellow nature, and not subject to be too much saturated by wet, I think the fall the best time.

To succeed in fall planting, the ground should be well ploughed in September, in order that it may be in a good pulverized state to receive the trees, for their well doing much depends on the state of the ground when they are planted: when they are planted in a well pulverized soil in the fall, the earth clings immediately to the fibres, and should the weather prove mild, they will in many cases make new roots or spongeoles, one of the principal advantages to be gained, as in this situation the tree is established in its new location, and immediately commences to draw nutriment from the *soil*, which is secreted and retained by it until the spring, preparatory to the vegetation of the branches and development of the leaves. Hence trees planted successfully at this season are in a state in the spring to receive every fertilizing quality from the soil, the genial influence of the sun, rain, &c. E. S.

### Forcing Fruit Trees to Bear.

Greenup County, Ky., March 3, 1842.

*Dear Sir*,—Having addressed you an epistle a fortnight ago, I did not at that time intend to write you again until I saw your comments upon the project proposed in that letter; but being under the conviction that I could not write too much for the good honest hearted yeomanry of the land, provided I kept in the limits of valuable information, I have, by the idea of facilitating the labor of the producing man in some measure, been prompted to address you at this time, the main object of which is to apprise the agricultural community of a novel mode of raising apples. I do not wish to be understood that it is novel with all, for it has been practised in Europe for many years, by the farmers in Germany in particular, who probably are the inventors; but I mean that it is novel to me, and if not to all, in my knowledge is at least not practised by them. The steps to be taken by the farmer to force his fruit tree to bear, as it is termed, are of a very simple nature, and can consequently be executed by any person who turns his hand to it without the aid of a practical operator, further than a description of the process. I hope, therefore, that my agricultural friends will not deem the description which I am about to give of the process to force trees to bear, unnecessarily minute. With a sharp knife (the blade of a penknife is the best) make a cut in the bark of the branch which is meant to be forced to bear, and not more than eight or nine inches from the place where it is connected with the stem, or if it is a small branch or shoot, near where it is joined to the large bough, (three inches or less,) the cut is to go round the branch, or to encircle it, and penetrate to the wood. Care must be taken not to cut the wood, which would necessarily cause detriment to the branch or shoot operated upon. A quarter of an inch or nearly, from the first cut make a second in the same way round the branch or shoot, so that both encircling the branch or shoot, a ring is formed thereon a quarter of an inch broad between the two cuts. The bark between these two cuts is now taken clean away with the small blade of a penknife, down to the wood, removing even the fine inner bark, which immediately lies upon the wood, so that no connexion whatever remains between the two parts of the bark, but the bare and naked wood appears white and smooth; but this bark ring, to compel the tree to bear, must be made at the time when the buds are strongly swelling, just before breaking out into blossom. In the same year of this operation, a callus is formed at the edges of the ring on both sides, and the connexion of the bark that had been interrupted is restored again without any detriment to the tree or branch operated upon, in which the artificial wound soon grows over. By this simple (though artificial means of forcing every fruit tree with a certainty to bear, the most important advantage will be obtained by those who watch the time nature is ripe for it. Three years ago, (the time when I was first informed of this singular way of forcing trees to bear,) I made an experiment on an apple tree. Being somewhat cautious of humbuggery, I confined the experiment to one branch of the tree, which was about a fourth part of the whole top of it. I did not notice it until May. I had partially forgotten it, as I had but little faith in its having any effect toward making the tree bear, and called by, rather to see if the limb which I had cut was not dead, than to observe any thing else; but to my astonishment I found the limb which I had expected to find dead in a vigorous state of life, with as much young fruit on it, apparently, as all the rest of the tree. On examining the young fruit, I found that on the branch which I had cut to be sound and firm, while that on the other parts of the tree were dwindled and very much decreased. I expected at first that it was owing to the cut which I had made on the branch, but I satisfied myself by examining other trees which I found to be in the same way, and which I found shortly afterwards to be falling off. In September, when I gathered the apples, I fonnd that the branch of the tree which I had made the experiment on, had five bushels on it, and the rest of the tree had not above one bushel on it, and that was inferior fruit. I would therefore recommend that farmers who have orchards would try the experiment. It would be well for them to be particular in the operation at first, for fear of damaging the tree.

WILLIAM R. THOMPSON.

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Coal Dust for Strawberries.—Dr. C. Dean, of South Plympton, writes to the editor of the Ploughman, that last November he set out twenty-four of Hovey's seedling strawberries; that several of them produced fruit last summer; that he put coal dust about some of them, and that these were the ones that bore fruit; the others bore none.

### Flowers and Fruits of Australia.

Many fruits grow and flourish in these colonies which can be reared in England only when they are housed, when means are taken to temper the keenness of the winter blast, and when the temperature of the air is increased by artificial contrivances. It is a matter of doubt, however, whether anything is gained by the inhabitants of New Holland in this particular; for many fruits which are admirably adapted to the temperature and moist climate of Great Britain, either do not come to perfection, or will not grow at all, in the dry, hot atmosphere of New Holland. A decision on the relative advantages and disadvantages will depend, in this instance, on the tastes of the individual; and, in arriving at a conclusion on this point, the native of Great Britain must not forget to bear in mind that every one is apt to attach somewhat more than its intrinsic value to that which is beyond his reach. For example, the Englishman will be in danger of forming a highly favorable opinion of the capabilities of that country for the growth of fruit, where the orange and the grape flourish and yield abundantly in the open air; but it will do him no harm to remember, that if the Australian colonists gain the orange and the grape, they lose the apple, the current, the gooseberry, and that most delicious of all fruits, the strawberry.

The native flowers are many of them exceedingly beautiful, and the geranium is almost a weed; but still, very many of the sweetest and most beautiful English flowers will not grow in the climate of New Holland. The native flowers are, with very few exceptions, perfectly inodorous, and they gladden the eye with their grateful presence but for a short period. The dreary wastes of New Holland are relieved by the varied tints of the native flowers in the spring time only. But few persons, I apprehend, would estimate the beautiful but scentless native flowers of New Holland, beyond the more quiet-tinted but sweet-smelling flowers of Great Britain. Even were they on a par in point of beauty and fragrance, the English flowers continue blooming a great part of the year, whilst the dull monotony of the arid shrubs of Australia is relieved only for a short time by beautifully formed and exquisitely tinted, but inodorous flowers. With all the charm of form, the Australian flowers must yield to the delicious fragrance and simple coloring of the flowers of the charming hedgerows of "Merry England."—*Bartlet's New Holland.*

From the Boston Cultivator.

### Salt for Fruit Trees.

*Messrs. Editors:* I observe, in a late number of your valuable paper, a communication by a Mr. DUPIN, on the effect of salt on fruit trees, &c. I am induced to send yon the following statement, from an old newspaper. The writer of it upon a visit to a friend in New Jersey, in 1794, took particular notice of a pear tree in the yard of his friend—attracted by its uncommon foliage and bloom, and its being more forward than any of its kind. In one night's time, this beautiful appearance was destroyed—the tree seemed as if it had been near a fire—the leaves were turned to a dull brown, and were much contracted—the blossoms all decayed, and hardly visible, and some of the small fruit falling off. So rapid a change naturally led to an inquiry into the cause. Some ascribed it to lightning—others to a partial blight. At length it appeared, that during the preceding fall, the shelter of the tree had been used by the family when salting pork, beef, &c., and when the business was finished, a considerable quantity of salt which had not been used, was left at the foot of the tree, in an old flour barrel; a violent and lasting rain fell soon after, dissolved and carried the salt into the ground, and no further notice was taken of it. Being informed of this fact, the writer states that he proceeded to examine the branches, cutting off one of them. He found the leaves not only highly impregnated, but incrusted, with a visible saline matter. This at once disclosed the origin of the disease; and during the summer, the tree died, owing, as he supposes, to the large quantity of salt taken into circulation. This statement was written at a time when salt was attempted to be introduced as an article of manure. It would therefore appear from these facts, if correctly stated, that it is possible to use too much salt, and that experiments, carefully and repeatedly made, can alone indicate the proper proportions to be employed, if, as Mr. Dupin seems to think, a certain quantity may be useful. VERITAS.

*October* 12, 1844.

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☞ Sow Millet between the middle of May and the middle of July, and it will make a heavy crop of hay in six weeks—from two to four tons per acre. For hay as soon as head is formed cut it; cure it in cocks. Sow a bushel of seed per acre.

### The Pitcher Plant.

There is not, perhaps, among the numerous examples that occur of the provident economy of nature in the vegetable part of the creation, a more remarkable instance of contrivance adapted to circumstances, and of means suited to the end, than what is evidently displayed in a plant which is commonly met with in Ceylon and other islands of the East, and which has obtained the appropriate name of the Pitcher Plant (Nepenthes distillatoria.) Being the inhabitant of a tropical climate, and found on the most dry and stony situations, nature has furnished it with the means of an ample supply of moisture, without which it would have withered and perished. To the foot-stalk of each leaf, near the base, is attached a kind of bag shaped like a pitcher, of the same consistence and color as the leaf in the early stage of its growth, but changing with age to a reddish purple. It is girt round with an oblique band or hoop, and covered with a lid neatly fitted, and moveable on a kind of hinge or strong fibre; which, passing over the handle, connects the vessel with the leaf. By the shrinking or contracting of this fibre, the lid is drawn open whenever the weather is showery, or dew falls, which would appear to be just the contrary of what usually happens in nature, though the contraction probably is occasioned by the hot and dry atmosphere; and the expansion of the fibre does not take place till the moisture has fallen and saturated the pitcher. When this is the case the cover falls down, and it closes so firmly as to prevent any evaporation from taking place. The water, when gradually absorbed through the handle into the foot-stock of the leaf, gives vigor to the leaf itself, and sustenance to the plant. As soon as the pitchers are exhausted, the lids open to admit whatever moisture may fall; and when the plant has produced its seed, and the dry season fairly sets in, it withers, with all the covers of the pitchers standing open.—*Barrow's Cochin China.*

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☞ Shell fruits, as walnuts, chestnuts, &c., may be preserved for a year or two by being divested of their outer shell, and thoroughly dried. In jars or tin cases, put in a layer of charcoal or dry sand, then a layer of nuts. Proceed in this way until they are full, properly securing each lid, to prevent the admission of air; when finished bury them in the open ground, or in some cool and dry cellar.—*Gardeners' Chronicle.*

### Planting Trees.

Reader, have you not some vacant spot in your orchard, some nook in your garden, some unplanted road-side, some unoccupied place in your yard, where some trees might be planted to advantage? Look around and see if there is not room for some, or perhaps many, of the kinds useful for timber, or their fruit, or ornamental purposes. It is possible you attended to this matter fully last spring, but the chances are that you will, on examination, find room for more trees. If so, now is a very good time to supply the deficiency; not so good, perhaps, as the fall would have been, but too good to be allowed to pass without improvement.—Trees may be transplanted at any time after the growth of the season is over, with perfect safety, and they may be removed at any time, if the fine roots are undisturbed, and during removal retain their hold on the earth. When trees are transplanted in the fall, it is necessary to guard against two dangers, to which spring planted ones are not so much exposed. The first of these is, they are apt to become loose in the ground from the action of the winds, as the roots do not take hold of the soil as quickly in the fall as in the spring; and the second is, water is apt to settle in the holes dug, and expose the roots to the injurious action of stagnant water. To prevent the first, if the tree is small, let a stake be well set in the ground, to which the tree, wound with bass matting, cloth, or something to prevent rubbing, may be securely fastened. If large, and the roots spreading, three sticks placed in a triangular form around the stem, and well fastened down at each angle by wooden hooks driven into the ground, will usually keep the tree in its place. If the soil is tenacious, and there is danger of the holes, when the tree is put in them, becoming pits of stagnant water, drains must be made to them, which will prevent the evil at once. Where a number of trees are to be set on such a soil, it will be much benefitted by a thorough deep ploughing, which will render the soil generally more pervious to water, and prevent its ready accumulation.—*Cultivator.*

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*Yellow Butter*, in winter, is made by putting in the yolk of eggs near the termination of churning. This also makes very fine and sweet butter. It has hitherto been kept a great secret by many, but its great value requires publicity. In many places it is usual to substitute a little finely scraped carrot for the egg.

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☞ A farmer should have several enclosed pastures to pasture his stock alternately in, to allow the grass time to recruit.

### On the Culture of the Verbena.

The almost perpetual flowering of the Verbena, in connection with its hardiness and easy culture, renders it one of the most desirable class of the Green-house and Flower-garden.—Most of the present pretty varieties now to be found among florists, have originated from two or three varieties, of which the old *Melindris* and *Tweediani* were the original parents.—These, with the old *White Teucroides*, have been crossed, and from them the most of the present brilliant kinds have emanated.

Most varieties of this plant are trailing or running vines, and are propagated or increased freely, when planted out in the garden, by rooting at almost every joint, in moist weather, in September and October, in the same manner as the Garden Strawberry. There are, however, some of the upright-growing kinds, which do not increase so readily this way, but they all root freely, when the young shoots are layered into pots or in the ground, when they are growing. The Verbena may also be propagated by cuttings, almost at any time, in the same manner as the Geranium, in pots filled with a compost of one-third sand, and the remainder loam and well rotted manure or leaf mould. It is also increased, to obtain new varieties, by seed, which is ripe in October, and should be collected and saved until the spring, and sown in pots filled with the same compost as directed for cuttings. The Verbena may be considered as strictly speaking, a Green-house plant, although it is in the Flower-garden, where its chief beauty is so desirable, particularly in the summer and fall of a dry season, when other flowers are almost perished,—then this plant is almost the only *Gem of Flora*. In the Flower-garden, it has a pleasing appearance in almost any location, and it is admirably adapted to be planted on the rockery, if any, or on any dry bank or rising ground, as it thrives well in any dry location, and is also often planted in masses in the flower borders, or in neat cut figures on grass plats, where the mingling of the different varieties form a pleasing contrast with the green sod. When ornamental vases are introduced in grass plats, they may be filled with compost, and the Verbena planted there, and if properly managed, the vines will hang down in brilliant tresses of flowers of the most ornamental character. In many cases, they are also trained to small trellises in the Green-house or Flower-garden, of an ornamental character, in the form of a fan, a balloon, pyramid, or almost any form the taste may be inclined to select.

For the Green-house, the plants should be selected in October, and planted into small pots, and taken into the house so soon as the first frosts appear. They should be placed on shelves near the glass, in order to receive the sun, and be in a dry location, so congenial to the flowers; when the plants are over-watered, and kept too far from the glass, they draw into weak, slender growth, and generally damp off on the surface of the earth in the pot. In rooms, the same culture and management will be requisite. The plants, in this location, during the winter, should be moderately watered, care being taken not to saturate the earth with too much water, which is injurious to them.—This brief notice will not admit the numerous list of the varieties of Verbena, now to be found in the gardens and collections of florists and nurserymen, to whom I recommend every lover of flowers, to select their best and choice varieties; and I hope the Verbena will find a place in every garden where a rod of ground is cultivated for the beauty of flowers.

E. SAYERS.

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### Potatoes.

A letter has been addressed to the editor of the Hereford Times, by Mr. W. Godsall, strongly recommending all persons interested in the potato crop to pull off the flowers as soon as they appear. Experience shows that flowers of the potato are produced at the expense of that organizable matter which gives its value to the tuber, and which is diminished in quantity in proportion to the number of flowers that have been fed. For flowers must exist and feed on something, and that something is what would, if not removed by the flowers, descend beneath the ground and collect itself in the tubers. The mere production of flowers is a loss, but the mischief is infinitely increased if the flowers are succeeded by the berries. The actual amount of loss produced by each truss of flowers is not ascertained; but it is probable that if the flowers abstract one ounce of organizable matter, the berries consume at least twice as much. A bunch of potato berries weighs half a pound. Suppose that each potato plant bears half a dozen bunches, that makes three pounds of worthless produce. An acre of potato ground carries about twenty thousand plants, on the average, this gives sixty thousand pounds waste. But of this fifty-four thousand four hundred and twenty-four pounds will be waterf according to Mr. E. Soly's experiments, and only five thousand three hundred and twenty-two pounds organic matter. The latter, however, or two tons seven hundred weight and forty-eight pounds, would, according to his calculation, be the amount of the loss sustained per acre, by allowing the potato to flower and fruit.

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☞ Covering potatoes after planting with straw of any kind, and then covering all with earth, has been found a productive plan of raising them; the straw not being much of a conductor of heat. Lime does the same.

### Culture of the Pie-Plant.
(RHEUM PALMATUM.)

The Pie-Plant is now so generally known as a substitute in the spring for tarts, that any description of its qualities would be here filling a space uselessly. Suffice it to say, that no family should be without it that has land. To the farmer, in the interior of the States, it is particularly recommendable, requiring but little attention in culture, and it always gives a satisfactory produce. The manner of cooking and preparing it for table, is also the most simple, requiring only to take off the stalks from the plants when young and tender, cutting off the leaves, slitting them into quarters, and cutting them into pieces about an inch long, and cooking by par-boiling and putting into paste and baking as pies; or they may be substituted for puddings. It also makes an excellent sauce, and is used as a substitute for cranberries and apples.

CULTURE.—The *Pie-Plant* requires a rich, deep, loamy soil, to flourish luxuriantly; on a poor, gravelly soil, the stalks are short and tough; any location will suit as to aspect; but, like all other vegetables, it comes to perfection earliest in a Southern aspect, which is a great item, as it is intended for an early produce. The Pie-Plant is increased either by seed or dividing the crowns of the roots. The seed may be sown in drills, on a rich piece of ground, in the same manner as directed for Asparagus. The crowns may be divided with an eye or two each, and planted into a final bed. The bed may be prepared early in the spring, in the same manner as directed for the Asparagus; lay it out into rows four feet apart, and transverse rows crosswise three feet apart in each angle; take out three or four shovelsful of earth, place into each one or two good shovelsful of well rotted manure, then place on it one plant, cover the crown with a good shovelful of rotten manure, level the earth from about the holes, and the work is done. The ground between the rows may be planted with lettuce, cabbage, or any other vegetable, the first year; but when the roots are established, it is best not to crop between the rows.

BLEACHING RHUBARB.—By many people the Pie-Plant is preferred in a bleached state, which requires a different method from the common treatment. The *bleaching* may be done early in the spring, by placing around the crown a flour-barrel, covering the crown all over, and placing around the outside the barrel long litter or manure to keep it warm and cause vegetation to commence, which will be in a few days, and in two or three weeks the stalks will be fit for use. Rhubarb may also be forced in frames, as directed in the framing department, which will appear soon. E. S.

### Improvement of the Quality of Potatoes.

It is well known that in some soils, and in most seasons, the produce of potatoes is abundant, and their quality excellent; while in others the quantity is not deficient, but the quality is inferior; and there are situations so unfavorable, that the crop is always bad in every respect. Occasionally, indeed, cold, wet seasons deteriorate this important crop, even in the best soil, on which the most skilful cultivation has been bestowed.

Supposing, however, that all has been done that could possibly be effected, in the way of good cultivation, yet when the crop is fit for taking up, its proper after-management is a most important consideration.

People think that if they guard their crop from frost, they have done all that can be needed; but this is a mistake of the worst kind.—By improper management after taking up, potatoes of the finest quality are easily spoiled; and, on the contrary, by judicious treatment, even such as are watery, may be much improved.

It is of the first consequence that *light*, as well as frost, should be guarded against, for light renders the tubers unwholesome.

The stems, and in fact all the parts of the potato plant above ground, are more or less poisonous. Tubers are occasionally formed along the stem, but they are, as we all know, green and bad. This is entirely owing to their exposure to light.

Having pointed out one of the sources of deterioration, it may be as well to name a means of improvement. Always dry the tubers before cooking them. If a potato is weighed when fresh taken up, then laid in a dry, warm place for some time, and again weighed, it will be found to have become lighter, in consequence of the evaporation of a portion of its water; and it will then, in cooking, be more mealy.—In Ireland, with this in view, potatoes, when watery, are often taken out of the caves and kept in a dry place for a few weeks, and a great improvement is the consequence. The French are aware of this fact. A writer in the *Revue Horticole* says: "In unfavorable seasons potatoes are often found to be watery and without flavor, although cooked with the greatest care. In this case, the mode of effecting an amelioration is easy; it consists in placing them near a stove or oven for about a week previously to their being used. At the end of that time they will be found mealy and of good flavor."—*London Gardeners' Chronicle.*

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☞ The last Sugar crop of Louisiana will amount to about one hundred and eighty thousand hogsheads.

### Primula—or, Primrose Family.

"I know not what it was that made
My heart to love thee so;
For though all gentle things to me
Were dear, long, long ago,
There was no bird upon the bough,
No wild-flower on the lea,
No twinkling star, no running brook,
I loved so much as thee;
I watch'd thy coming every spring,
And hail'd thee as a living thing."

This pretty little flower of poetry is a native of England, and is found blooming in the greatest perfection in copses, margins of brooks, lanes, and other shady situations, during the months of March and April. This tribe is generally considered to consist of the Polyanthus, Primrose, Cowslip, and Oxlip, all of which are cultivated as florist flowers. However, how these four can be considered as the same family, I am at a loss to tell, for the Polyanthus appears as distinct from the Primrose as the Auricula is from the Polyanthus—consequently, will be treated accordingly. The Primrose is a perennial rooted plant, and can be propagated either by dividing the root or by seed. This interesting flower has been the theme of many a ditty with poets for several hundred years, and has sustained its reputation as a favorite flower up to the present time, which is more than many flowers now in cultivation will do ten years hence. The color of this flower is a brimstone yellow, possessing a fragrance much like the Anise. I have frequently, when a boy, found them in copses, of a purple crimson, beautiful in appearance, growing on a single stem, and flowering profusely. Where the ground contains moisture, there the flowers are most profuse and luxuriant, and in a few minutes a person could pick as many as could be conveniently carried in one hand at a season when scarcely any other flower has made its appearance, thus enlivening our imagination on the approach of spring. The Cowslip luxuriates more in the open meadow, and throws up a scape with a bunch of flowers each about the size of a half dime, in color inclining to the orange, bestowing quite an enchanting appearance on the meadow. Frequently amongst this tribe of flowers will be found the Oxlip, which appears to be a hybrid between the Primrose and Cowslip, having the stem of the latter and the flower of the former. I have never seen either of the latter sport in colors in the fields, but have by cultivation; their colors, even then, are dingy, and I think no improvement on their natural colors, while the Primrose has the ascendency in that particular, for we see them yellow, white, red, crimson, and carmine.—Then there is the double yellow, white, dingy white, lilac, crimson, and carmine, all of which are magnificent flowers. The double are styled by botanists *Monsters*, being a sport of nature; and I think if nature would sport more among her bounteous gifts in the flower department, we should feel grateful for such monsters. The Primrose can be easily propagated by dividing the roots in the spring or fall. The division of the roots must not be done with a knife, and if not effected with the fingers, must be done with the end of a budding knife of ivory or bone; when divided, pot each part that has root fibres, give a gentle watering, and set them in the shade. To propagate from seed, it will be necessary to sow them in February, in a box or pan, with a compost that will retain moisture, lightly covering the seeds, and in six weeks your seeds will be up; be careful and not let the sun shine on them after nine in the morning, or you may lose the plants. The Primrose is considered hardy, and is really so, after the first season, in this country. In the summer, this plant, like the Polyanthus, is subject to be injured by the red spider; this insect can be easily destroyed by soap suds, made of whale oil soap; but so long as you can keep the plants in a healthy, growing state, there is no danger from those troublesome insects. The saccharine matter contained in the leaves of those plants, affords them nourishment as the summer advances, which must be checked by watering freely over the foliage, or your plants will dwindle and die. T. WINTER.

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### Culture of Fruit Trees.

Mr. Allen Coffin, of Edgartown, in a letter to the editor of the Albany Cultivator, says:

"In the New-England Farmer, of May 11, 1842, page 355, there is a letter I wrote, which differs a trifle from the following statement:—Our island is surrounded by the ocean; it is twenty-one miles long and five wide. But little fruit has ever been raised on it, and that little very inferior. It has often been said, it is impossible to raise good fruit on this island. Eleven years ago I hired a man to set out seventeen apple trees. He dug very small holes, and set them out in a very short time. The spring following, I set out one apple tree. I dug the hole ten feet in diameter and three feet deep. The subsoil (yellow earth) was carried away, and the hole filled with sods inverted and rich earth. *That tree has borne more apples than all the others.* This spring it measured thirty-four and three-quarter inches in circumference near the ground. The largest of the others is twenty-three and one-quarter inches. Had I given ten dollars a piece to have had them set out as they should have been, instead of having them set out as they were, I believe it would have been money well laid out.

"One of my trees has borne no fruit. This spring (1844) I examined it, and instead of having the roots to extend horizontally, or nearly so, they turned directly down."

### Cincinnati Horticultural Society.

Saturday, *Aug.* 31, 1844.

The meeting this day was held at the room of the Society, at ten o'clock; Vice-President Flagg in the chair. The following resolutions were passed:

*Resolved*, That a committee of two be appointed to assist the treasurer in calling upon delinquent members to pay up before our annual exhibition. Dr. Flagg and J. P. Campbell were appointed.

*Resolved*, That the choice of a room to hold our annual exhibition in, be left to the Council.

*Resolved*, That the subject of a Festival be postponed until our next meeting.

An election was held, and Nathan Hastings and R. P. Brooks were admitted members.

The bill of A. T. Loring, for making table for the Society, was audited, and ordered to be paid; amount ten dollars.

The following members were appointed to assist the Committee on Decorations, at their request, viz: John P. Foote, John C. Jeffries, D. K. Cady, E. B. Reeder.

FRUITS.

Caleb Bates exhibited Bon Chrétien Pear.

Mr. Ferris, Pine Melon.

FLOWERS.

Sayers & Heaver exhibited twenty-two varieties Dahlies, eight varieties Roses, and one Cobea Scandens.

P. S. Bush, Monthly Cabbage Rose.

Mr. Ferris, varieties of Balsams and Dahlias.

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Saturday, *Oct.* 5, 1844.

The Society held a business meeting, as usual, this being the first Saturday in the month; the President in the chair.

A communication, signed "A Member," on the cultivation of the Dewberry and Blackberry, was read, and ordered to be printed.

A conversation on the extraordinary productiveness of plants in the West, ensued, in the course of which Mr. Hoffner stated that a pumpkin vine, from a seed brought from Delaware, extended with its laterals three thousand three hundred and forty feet, and produced forty-three pumpkins.

Mr. Parkhurst moved that the annual assessment of one dollar be rescinded; which motion was continued for discussion at our next meeting for business.

The President called the attention of the members to an article in the Western Farmer, upon the "yellows" in peach trees; which occasioned some discussion.

Dr. Mosher presented a paper on "Fire Blight," which was read and ordered to be printed.

On motion of Mr. Winter, one hundred copies of the "Western Farmer and Gardener," containing the account of our late exhibition, were purchased for the use of members.

Mr. Brace exhibited a specimen of Grapes from G. D. Fitzhugh, Madison, Indiana, which were taken from a vine obtained from N. Herbemont, South Carolina, with a request that they be compared with the Ohio Grape. Most of the members thought them identical with the Cigarbox Grape.

Mr. Kidd exhibited specimens of Heath Peaches.

Mr. Brace, Summer Seek-no-further Apples, and one variety name unknown.

Mr. Chapman, a bunch of Sweet Potatoes, of eighteen tubers on one stem.

Amos Worthington, some ears of Corn fifteen and a half inches in length, also Kidney Potatoes.

G. Graham, a variety of Dahlias and Roses.

Sayers & Heaver, thirty-five varieties Dahlies, and some splendid Bouquets of flowers.

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Saturday, *Oct.* 12, 1844.

The Society met, as usual, this morning, at ten o'clock,—it not being a business meeting. Nothing was done, except in the way of exhibitions.

Mr. G. Sleath exhibited one stalk Tobacco, from Madison, Indiana, measuring thirteen feet.

John Kizer, stalks of Corn, fifteen feet high, and ears of the same, measuring fifteen and a half inches in length, raised by him in Delhi township.

J. Brace, a Cocoon of the Wild Silk Worm.

C. Toby, presented Grapes which had grown since July last, not quite ripe.

N. Hastings, specimens of Catawba and Issbella Grapes.

Thomas Longworth, Brown Beurré Pear.

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Saturday, *Nov.* 30, 1844.

Mr. Ferris, presented two specimens of Seedling Apples, one of which was called the Winter Russet, the other the Red Winter Sweeting.

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Saturday, *Dec.* 6, 1844.

The Society held a regular business meeting this morning at ten o'clock; Dr. Flagg, First Vice President, in the chair.

The first business coming up for discussion, was the motion made at a previous meeting, to rescind the resolution levying a tax of one dollar upon each member. The motion was thoroughly discussed, and finally the tax was rescinded.

On motion, the Treasurer was ordered to employ a Collector at a rate not exceeding five per centum, to collect all outstanding dues at once.

A resolution was offered by Mr. Saunders to appoint a committee of three members to consider the propriety of awarding premiums for fruits and flowers during the coming year, and to name a committee of five persons to award those premiums. Resolution adopted, and Chairman authorized to appoint committee.

On motion, the Committee on Lease, were directed to have the lease consummated, and the promised repairs made in our room.

On motion, the former committee on Nursery Ground was discharged.

The Chairman was requested to appoint a committee of three, to ascertain at what price five to ten acres of ground can be had within a short distance of the Corporation line, for the use of the Society; said committee to report at the business meeting in February next.

The Committee on Wines, through their chairman, made a report; not acted upon.

Mr. Ernst, from H. G. Hyde, of Newtown, Massachusetts, exhibited Red Baldwin and Hubbardstown Nonsuch Apples.

From G. Ross, the Society received Woodford Apple, from Carlisle, Kentucky.

Mr. Knoop, of Troy, Ohio, exhibited Sweet Belleflower Apples.

Stephen Roney, near Troy, Ohio, exhibited Miami Russet and Ellen's Favorite Apples, both seedlings.

Mr. Ernst, exhibited White Pippin, Detroit Apple, and Newtown Spitzenberg.

Mr. Mottier, Milam Apples, Smith's Cider Apple, Geneating, White Pippin.

Mr. Duffield, Yam Massicot, grown the past summer in the open air, without any protection, and believed to be fully ripe.

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SATURDAY, *Jan.* 4, 1845.

Regular monthly meeting of the Society; Dr. Flagg in the chair.

Minutes of the last meeting read, and the following errors corrected, viz: Where it is stated that the rule requiring the members to pay the sum of one dollar yearly was rescinded, it should be, *was not rescinded*; also, that the apples exhibited by G. Ross, Mr. Knoop, and Stephen Roney, were *presented* by Mr. Ernst.

On motion of Mr. Brigham,

*Resolved*, That Messrs. Buchanan, Russell, and Parkhurst, be a committee to procure a charter for this Society.

On motion of Mr. Loring,

*Resolved*, That the above committee be authorized to use such means as they think proper to procure said charter.

Mr. Reeder, from the Committee on Lease, made a verbal report, that he had not yet procured the lease, but that there would be no difficulty in getting it.

The Chairman announced the following committees:

*Committee on Premiums*—J. P. Foote, J. B. Russell, and J. G. Anthony.

*Committee on Nursery*—C. W. Elliott, Geo. Graham, and C. Ferris.

On motion of Mr. Foote, the following gentlemen were added to the Nursery Committee: Dr. Flagg, S. S. Jackson, Dr. Mosher, J. L. Bush, Charles Duffield, and George Hill.

On motion of Mr. Hoffner, it was

*Resolved*, That Dr. Flagg, Dr. Smith, and Mr. Buchanan, be a committee to correspond with Mr. Lemuel Woodward, of Plainfield, Connecticut, in relation to a piece of land belonging to him.

On motion of E. J. Hooper, it was

*Resolved*, That a committee of three be appointed to draft a petition on behalf of the Cincinnati Horticultural Society, praying that all trespass on vegetables and fruits, fruit and ornamental trees and shrubs, and flowering plants, be made by law a penal offence.

Messrs. Duffield, Graham, and Foote, were appointed that committee.

Mr. Kidd exhibited two varieties of the Geneating Apple.

Mr. Brigham, the Michael Henry Apple, and one unknown.

J. L. Bush exhibited Phœnix or Pinnock Apple from Thomas Garrard, of Pendleton, Kentucky.

Dr. Smith, a beautiful Apple, name unknown, procured in Market.

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SATURDAY, *Jan.* 18, 1845.

Mr. Buchanan exhibited very fine Newtown Pippins, from J. H. James, of Urbana.

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### Separating Seeds from Pomace.

In washing apple and pear seeds from pomace, put about half a bushel of pomace in a barrel, fill the barrel half full of water, then with a stick that has a number of large nails driven into it all round, six or eight inches on the lower end, and sticking out most of their length, agitate the pomace violently in the water, by which the seeds will separate and sink down, and the pomace, which will swim or be suspended, may be turned off. Repeat this till the seeds are clean; or when you have partially cleaned several small lots, put them all into one, and repeat the stirring and washing. After washing, the seeds should be carefully dried. —*Boston Cultivator.*

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### Water and Musk Melons.

Give each hill plenty of rotted manure or ashes, and in a few days a table spoonful of spent ashes or Plaister of Paris.

### The Flower Garden for February.

The weather for the last month has been unusually mild, accompanied with rain and snow, which had a tendency to forward many kinds of bulbous roots, and at the same time, in all probability, will destroy those planted late. Should the weather continue mild but a short time longer, Hyacinths, Tulips, and Crocuses, will be up. Provided the weather should set in cold, the best plan will be to draw the soil over them until the weather should change. The winter season is now fast leaving, admonishing us to be on the alert; if mild weather, turn over your beds and borders, and make preparation for the coming season. Dahlias should be examined, and if any part is found to be rotted cut such part off; pot the balance, if a valuable kind, and encourage it to sprout; but be careful in giving water. The last of this month prepare a hot-bed for the seeds of early flowers, such as Balsam China and German Asters, Pansy, Dahlia, Auricula, &c. Remove Roses, Arbor Vitæs, and other ornamental shrubs and trees, when the weather will permit.

THE PARLOR.

Camellias will now be coming into bloom; *guano* will be beneficial to them, used judiciously, and syringing over the foliage occasionally with clean water; as soon as those plants have done blooming, repot,—inarch and increase by cuttings. The Camellia is a plant requiring abundance of water during their flowering season, and when making young wood, which must not be neglected. Roses, Verbenas, Cinerarias, and Fuschias, should be repotted into a size larger. Achimenes, Gladiolus, and Amaryllis, may be potted to bloom early. The Primrose family will require a bountiful supply of water; free your plants of the green fly that infests your Roses, either with tobacco smoke or whale-oil soap-suds, and keep your pots free of decayed leaves. Carnations, Picotees, and Pinks, the last of this month, will require attention. Hyacinths and Tulips, in glasses and pots, must be attended to, as their flowers will now begin to open.

T. WINTER.

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### Culture of Fruit.

The proper management of fruit trees to obtain the best returns each season, is a matter of interest to all fruit growers, and we give below the account of R. L. Pell, Ulster county, New York, which took a Gold Medal, being a premium offered by the American Institute for the best Fruit Farm. It appears Mr. Pell has in view the market of Europe, by extensively cultivating the Newton Pippin, that cannot be competed with for profit in that market. He has also kept in view the market of his own State in other fruits, for which he has been awarded the premium as above stated. His statement was addressed to the committee on Fruit Farms.

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*Gentlemen,*—Being desirous to compete for the premium to be awarded by the American Institute at its Sixteenth Annual Fair, for the best Fruit Farm in the State, I now abide its rules, and offer, at the request of Mr. T. B. W., its worthy and very useful Secretary, my mode of managing.

For some years I have been experimenting upon the apple tree, having an orchard of twenty thousand Newton Pippin apple trees; I have found it very unprofitable to wait for what is termed the bearing year, and consequently it has been my study to assist nature, so as to enable the trees to bear every year; I have noticed that it bears more profusely than any other tree, and consequently requires the intermediate year to recover itself, by extracting from the atmosphere and earth the requisites to enable it to produce. If unassisted by art, the intervening year must be necessarily lost. If, however, it is supplied with the proper sustenance, it will bear every year. Three years ago, in April, I scraped all the rough bark off a few of the apple trees in my orchard, and washed the trunks and limbs within reach with soft soap, trimmed out all the branches that crossed each other early in June, and painted the wounded part with white lead, to keep out the moisture; then split open the bark by running a sharp pointed knife from the ground to the first set of limbs, in the latter part of the same month, which prevents the tree from becoming bark bound, and gives the inner wood an opportunity of expanding. In July, I placed one peck of oyster shell lime around each tree, and left it piled about the trunk until November, when I dug the lime in thoroughly. The following year, I collected from these trees seventeen hundred barrels of fruit, some of which were sold in New York for four dollars, and the balance in London for nine dollars per barrel. Strange as it may appear, they are literally bending to the ground with the finest fruit I ever saw, a specimen of which is before you. The other trees in my orchard, not being treated as above, are barren, next year being their bearing year.

ROBERT L. PELL.

Ulster county, N. Y., Oct 8, 1843.

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### Sweet Potatoes,

May be planted in ridges by throwing three furrows together, then draw the dirt up on both sides with a hoe or rake; open a trench on the top, and drop the slips five or six inches apart. Keep them in a warm cellar, in a garner, with chaff or dry dirt around them. Plant in May, and be sure to dig after the first frost has bitten the leaves.

*Gloxinia*